Granular scrubs for use in manufacturing titanium dioxide pigment

Description of Technology: The present invention relates to an improved process for making titanium dioxide pigment, wherein granular scrubs comprising a water-soluble salt are used for cooling a hot gaseous suspension of titanium dioxide particulate in a cooling conduit.

Patent Listing:

1. **US Patent No. 5,759,511**, Issued June 2, 1998, "Granular scrubs for use in manufacturing titanium dioxide pigment"
   http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F5759511

Market Potential: In producing pigmentary titanium dioxide (TiO.sub.2), a titanium tetrahalide such as titanium tetrachloride (TiCl.sub.4) in the vapor phase is reacted with an oxygen-containing gas in a reactor at a temperature in the range of about 900.degree. to 1600.degree. C. to produce a hot gaseous suspension of TiO.sub.2 solid particulate and free chlorine. This hot gaseous suspension must be quickly cooled below 600.degree. C. within about 1-60 seconds following discharge of the suspension from the reactor. This cooling is accomplished in a conduit, e.g., a flue, which is externally cooled with flowing water so that undesired TiO.sub.2 particle size growth is prevented and particle agglomeration is minimized. Particle size and particle agglomeration are important TiO.sub.2 pigment properties.

Benefits:

- Improved way of making titanium dioxide pigment

Applications:

- Titanium dioxide pigment

Contact: Ken Anderson
Director, Entrepreneurial & Small Business Support, Delaware Economic Development Office (DEDO)
Carvel State Building, 820 French Street, Wilmington, DE, 19801
Phone: (302) 577-8496, Fax: (302) 577-8499, Email: Kenneth.R.Anderson@state.de.us